CLAIMS

1. A method in a wireless communication system employing a communication protocol in which a retransmission timeout value is calculated by a sender from a round-trip time, the method for preventing a spurious retransmission during a planned interruption of communications, the method comprising:

determining whether the planned interruption is about to occur; and

in response to determining that the planned interruption is about to occur, progressively increasing the round-trip time for a plurality of successive data segments sent before the planned interruption occurs, such that the retransmission timeout value becomes larger than a time required to complete the planned interruption, thereby preventing the spurious retransmission.

2. The method of claim 1, wherein progressively increasing the round-trip time comprises increasing the round-trip time for each data segment of the plurality of successive data segments by an amount insufficient to exceed the retransmission timeout value when the data segment is sent.

3. The method of claim 1,

wherein the communication protocol is a self-clocking protocol, and

wherein progressively increasing the round-trip time comprises adding a delay in only one direction of a two-way communication channel.

4. The method of claim 1,

wherein the communication protocol is Transmission Control Protocol (TCP), and

wherein the method further comprises progressively increasing the round-trip time for each data segment of the plurality of successive data segments by about 400 milliseconds more than that of an immediately previous segment.

5. The method of claim 1,

wherein the planned interruption of communications is caused by a break-before-make handoff of a mobile station from a first cell to a second cell.

6. A mobile station in a wireless communication system employing a communication protocol in which a retransmission timeout value is calculated by a sender from a round-trip time, the mobile station for preventing a spurious retransmission during a planned interruption of communications, the mobile station comprising:

a transceiver for communicating with a fixed portion of the wireless communication system; and

a processor coupled to the transceiver for controlling the mobile station,

wherein the processor is programmed to:

cooperate with the transceiver to determine whether the planned interruption is about to occur; and

in response to determining that the planned interruption is about to occur, progressively increase the round-trip time for a plurality of successive data segments sent before the planned interruption occurs, such that the retransmission timeout value becomes larger than a time required to complete the planned interruption, thereby preventing the spurious retransmission.

7. The mobile station of claim 6, wherein the processor is further programmed to increase the round-trip time for each data segment of the plurality of successive data segments by an amount insufficient to exceed the retransmission timeout value when the data segment is sent.

8. The mobile station of claim 6,

wherein the communication protocol is a self-clocking protocol, and

wherein the processor is further programmed to add a delay in only one direction of a two-way communication channel.

9. The mobile station of claim 6,

wherein the communication protocol is Transmission Control Protocol (TCP), and

wherein the processor is further programmed to progressively increase the round-trip time for each data segment of the plurality of successive data segments by about 400 milliseconds more than that of an immediately previous segment.

10. The mobile station of claim 6,

wherein the planned interruption of communications is caused by a break-before-make handoff of the mobile station from a first cell to a second cell.

11. A base station in a wireless communication system employing a communication protocol in which a retransmission timeout value is calculated by a sender from a round-trip time, the base station for preventing a spurious retransmission during a planned interruption of communications, the base station comprising:

a transceiver for communicating with a mobile station; and

a processor coupled to the transceiver for controlling the base station,

wherein the processor is programmed to:

cooperate with the transceiver to determine whether the planned interruption is about to occur; and

in response to determining that the planned interruption is about to occur, progressively increase the round-trip time for a plurality of successive data segments sent before the planned interruption occurs, such that the retransmission timeout value becomes larger than a time required to complete the planned interruption, thereby preventing the spurious retransmission.

12. The base station of claim 11, wherein the processor is further programmed to increase the round-trip time for each data segment of the plurality of successive data segments by an amount insufficient to exceed the retransmission timeout value when the data segment is sent.

13. The base station of claim 11, .

wherein the communication protocol is a self-clocking protocol, and

wherein the processor is further programmed to add a delay in only one direction of a two-way communication channel.

14. The base station of claim 11,

wherein the communication protocol is Transmission Control Protocol (TCP), and

wherein the processor is further programmed to progressively increase the round-trip time for each data segment of the plurality of successive data segments by about 400 milliseconds more than that of an immediately previous segment.

15. The base station of claim 11,

wherein the planned interruption of communications is caused by a break-before-make handoff of the mobile station from a first cell to a second cell.

16. A wireless communication system employing a communication protocol in which a retransmission timeout value is calculated by a sender from a round-trip time, the wireless communication system for preventing a spurious retransmission during a planned interruption of communications, the wireless communication system comprising:

a mobile station for communicating with a fixed portion of the wireless communication system; and

at least two base stations for communicating with the mobile station,

wherein the mobile station is arranged and programmed to:

determine whether the planned interruption is about to occur; and

in response to determining that the planned interruption is about to occur, progressively increase the round-trip time for a plurality of successive data segments sent before the planned interruption occurs, such that the retransmission timeout value becomes larger than a time required to complete the planned interruption, thereby preventing the spurious retransmission.

17. The wireless communication system of claim 16, wherein the mobile station is further arranged and programmed to increase the round-trip time for each data segment of the plurality of successive data segments by an amount insufficient to exceed the retransmission timeout value when the data segment is sent.

18. The wireless communication system of claim 16,

wherein the communication protocol is a self-clocking protocol, and

wherein the mobile station is further arranged and programmed to add a delay in only one direction of a two-way communication channel.

19. The wireless communication system of claim 16,

wherein the communication protocol is Transmission Control Protocol (TCP), and

wherein the mobile station is further arranged and programmed to progressively increase the round-trip time for each data segment of the plurality of successive data segments by about 400 milliseconds more than that of an immediately previous segment.

20. The wireless communication system of claim 16,

wherein the planned interruption of communications is caused by a break-before-make handoff of the mobile station from a first cell to a second cell.